

6

09/932,707 Byers 44-6

Remarks

Reconsideration of the application and allowance of all claims pending are respectfully requested. Claims 1-19 are pending; new claims 18-19 being presented.

Claim Rejection - 35 U.S.C. §103:

All pending claims were rejected under 35 U.S.C. §103 as being anticipated by Hamanaka (U.S. Patent No. 5,500,523). This rejection is respectfully traversed.

The status of the application leading to the Office Action of January 25, 2006 should be clarified. That is, following the final rejection, applicants submitted a Pre-Appeal Brief Request for Review concurrent with the filing of a Notice of Appeal. The relief requested was for the withdrawal of the rejection of the claims under 35 U.S.C. 102 based on Hamanaka. The Notice of Panel Decision from Pre-Appeal Brief Review stated that a conference had been held and that the rejection was withdrawn with a new Office Action to be mailed. The "new" Office Action of January 25 is the same as the prior final Office Action with only Hamanaka being relied upon to support a rejection under 35 U.S.C. 103 instead of 35 U.S.C. 102. The new rejection under 35 U.S.C. 103 does not rely on additional references, does not rely upon any portions of Hamanaka not previously applied, and provides no additional evidentiary facts. Hence, the "new" rejection under 35 U.S.C. 103 is not seen as being substantially different from the position previously taken in the final Office Action.

Applicant incorporates by reference the amendment filed in response to the final Office Action and the arguments presented in the Pre-Appeal Brief Request for Review herein.

The attached Affidavit of Charles Byers ("affidavit") is submitted pursuant to 37 CFR 1.132.

In the Office Action on page 3, the examiner again restates the interpretation given to Hamanaka. It is contended that the bottom cross-hatched area shown in Hamanaka's FIG. 2 does not extend

the entire length of the circuit board and does not form the bottom edge of the circuit board. It is stated that "the possibility exists" that the cross-hatched area shown in Figures 2 and 4 is simply a leg or stand-off used to position the board, and that the window portion (opening) of the circuit board forms a "T" around such legs. The only support pointed to by the examiner for such a structure is the phrase in Hamanaka of "electronic circuit board 11 having an opening 11a defined in one end thereof."

Applicant respectfully traverses the conclusion drawn by the examiner as to the structure of the circuit board in Hamanaka based on this phrase. As previously pointed out by applicant, referring to an object as having an opening/hole defined in or at one end of the object does not specify an exact location of the hole relative to the distal end of the object. For example, a kitchen utensil having a hole in the handle so that the utensil can be hung from a peg could also be described as having a hole at one end of the handle. It will be apparent that the extreme distal end of the handle will be formed of the handle material and will not have the hole concurrent with the distal end. Further, see paragraph 17 of the affidavit which provides evidence that one of ordinary skill the art would not interpret the subject phrase as used in Hamanaka as meaning an exact location and that the opening 11a has referenced in the subject phrase would not be understood to be concurrent with the distal most edge of the circuit board. Therefore, it is respectfully submitted that one of ordinary skill the art would not understand Hamanaka as describing a structure as proposed on page 3 of the Office Action. Thus, the rejection of claim 1 under 35 U.S.C. 103 in view of Hamanaka should be withdrawn since a processing unit having an aperture for passage of the beam line is not described or suggested in Hamanaka where the aperture is configured to permit installation and removal of the processing unit without blocking the beam line, as required by claim 1.

One of ordinary skill the art would interpret the opening 11a of Hamanaka as being enclosed within the circuit board 11 such that the bottom cross-hatched portion shown in FIG. 2 constitutes part of the circuit board that lies below and in the same plane as the optical beam; see FIG. 2. This of course means that the optical beam that passes through the motherboard in Hamanaka will be blocked or interrupted by the insertion or removal of a circuit board from a slot in the motherboard. The facts recited in paragraphs 11-15 in the affidavit support this

interpretation of Hamanaka and the understanding that would be drawn by one of ordinary skill in the art based on the description and drawings in Hamanaka. Therefore, the withdrawal of the rejection of claim 1 under 35 U.S.C. 103 based on Hamanaka is requested.

In the Office Action the bottom cross-hatched area of FIG. 2 was suggested by the examiner to perhaps represent a leg, as opposed to a continuous length of the circuit board along the distal edge of the circuit board. Although applicant does not agree with the examiner's conclusion as to the structure of Hamanaka, assume for purposes of argument that the bottom cross-hatched area represents a leg. It is clear from the cross-hatching of this bottom portion that it represents material that was cut by the plane that defines FIG. 2, otherwise the bottom portion would have been shown without cross-hatching. It is also clear that this plane defines the optical path as shown in FIG. 2 pursuant to the brief description of the drawings definition of FIG. 2. In the final Office Action of July 13, 2005, on page 5, it was stated: "... the examiner agrees with the applicant's assertion that the cross-hatched area extends both above and below the window area 11a in Figure 2...." Therefore, it will be clear to one of ordinary skill the art that even a leg that extends below and in the same plane as the optical beam will at least temporarily block the optical beam as the board is inserted into or removed from a slot in the motherboard in accordance with the structure of Hamanaka. Paragraph 16 in the affidavit establishes that even a leg associated with the circuit board in Hamanaka as suggested by the examiner would cause an optical beam disruption upon the insertion or removal of the circuit board from the motherboard. Therefore, the rejection of claim 1 based on 35 U.S.C. 103 in view of Hamanaka should be withdrawn.

Referring to paragraph 18 of the affidavit, a further reason exists why the structure as taught by Hamanaka does not teach or suggest the subject matter of claim 1. One of ordinary skill the art would understand that the air opening 11a in the circuit board of Hamanaka and the glass substrates 30 will have different indexes of refraction. Therefore, inserting a circuit board of Hamanaka into an optical beam being carried by the motherboard 20 will cause a blockage or disruption of the optical beam due to a change in boundary conditions represented by different indexes of refraction. This is known to be due to edge effect light bending which would be caused as the edges of the air opening and glass substrates entered or left the optical beam. Thus,

for this additional reason, Hamanaka does not teach or suggest a structure having limitations as defined in accordance with claim 1.

It should be noted that the beam line referenced in claim 1 is a "free space" beam line. The motherboard 20 in Hamanaka describes that the optical beam is carried by a rod lens 2 as shown in FIG. 4 and rod lenses 21, 22 as shown in FIG. 5. Therefore, Hamanaka does not teach or suggest a processing unit including an aperture for passing a free space beam line and configured to permit installation and removal of the processing unit without blocking the free space beam line. For this additional reason, the rejection of claim 1 under 35 U.S.C. 103 based on Hamanaka should be withdrawn. See also limitations of new claims 18-19.

"To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' " *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) Emphasis added to this quotation found in the MPEP 2112.

The "possibility" as expressed by the examiner on page 3 of the Office Action that Hamanaka might have the structure suggested by the examiner is clearly conjecture that is impermissibly based on the hindsight teachings of the present invention. Such an interpretation of an inherent feature is not legally permitted; see above.

Claim 4 further recites a processing unit wherein the **removable portion of the processing unit** is configured to be replaceable after installation without blocking said beam line. In the Office Action, the only explanation of how Hamanaka teaches this requirement is "as seen in Figure 4". FIG. 4 of Hamanaka merely shows the insertion of an entire integral board 10 into a motherboard 20. Nothing about board 10 itself is intended to be movable or replaceable; the entire circuit board is or is not seated in a slot in the motherboard. Hence, Hamanaka does not support a teaching of the required limitation.

10

09/932,707 Byers 44-6

Independent method claim 11 defines a method for installing and removing processing units wherein communications among the processing units is effected by a free space beam line. An aperture is provided in the processing units. The processing units are installed so that the beam line passes through the aperture so as not to block the beam line during the step of installing. Claim 11 is not rendered obvious based on Hamanaka for similar reasons explained above regarding claim 1.

Claim 12 describes a moving a movable portion of the processing unit out of a way of the beam line during installation, and replacing it after installation. No such teaching is found in Hamanaka for similar reasons explained above regarding claim 4.

Pursuant to MPEP 706.07(c), it would be inappropriate to make a following Office Action final should new references or grounds be applied in support of a rejection of any of the claims not amended by applicant since no change of position with regard to unamended claims could have been caused by applicant.

In view of the above amendments and remarks, allowance of all claims pending is respectfully requested. If a telephone conference would be of assistance in advancing the prosecution of this application, the Examiner is invited to call applicants' attorney.

Respectfully submitted,



Charles L. Warren
Attorney for Applicants
Reg. No. 27,407

Dated: March 7, 2006

CARMEN B. PATTI AND ASSOCIATES, LLC
Customer Number 47382